



EVOLVING CHARACTERISTICS OF THE EAST-ASIAN SUMMER MONSOON IN 2003

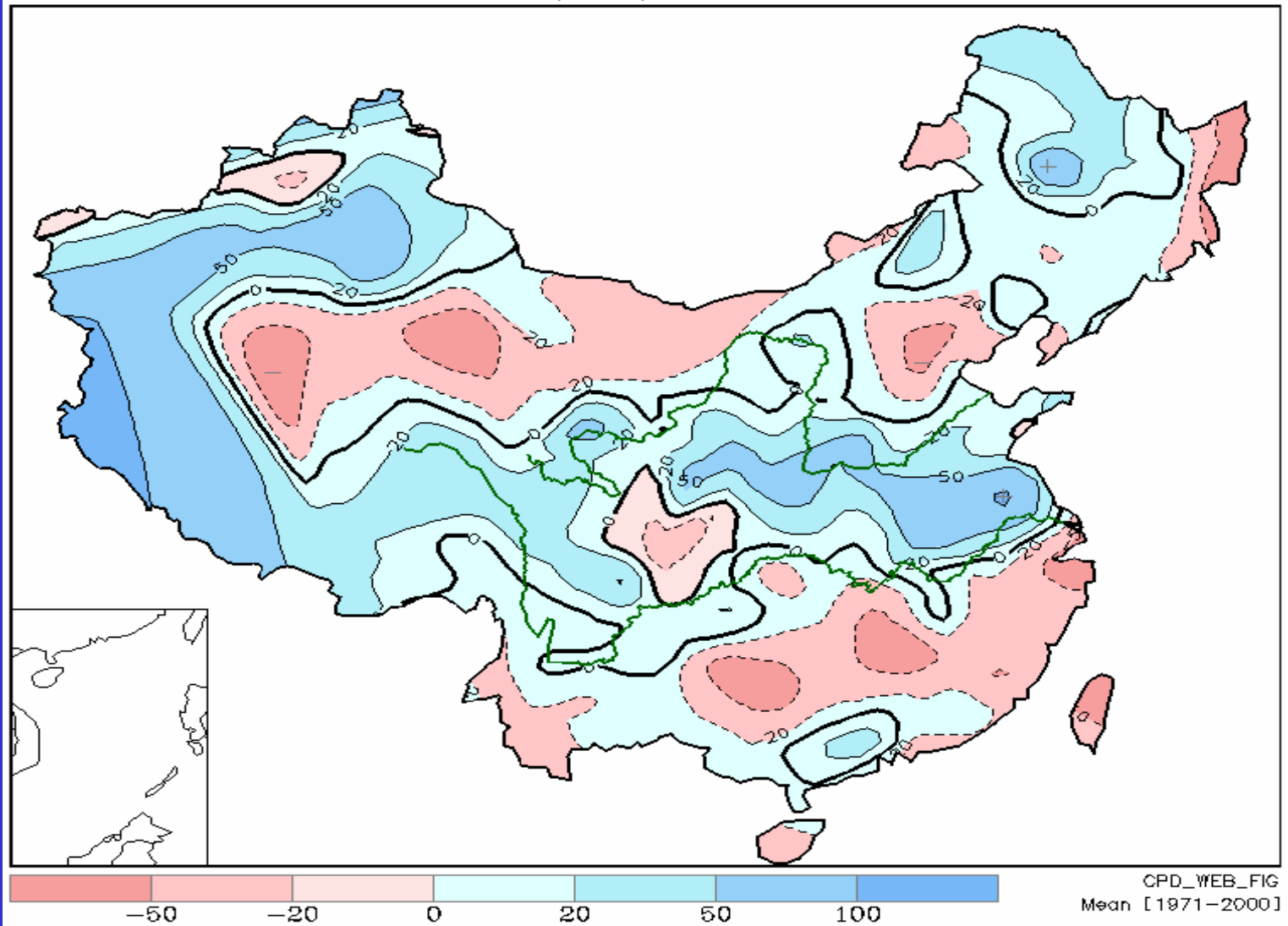
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BeiJing 2003.10.27

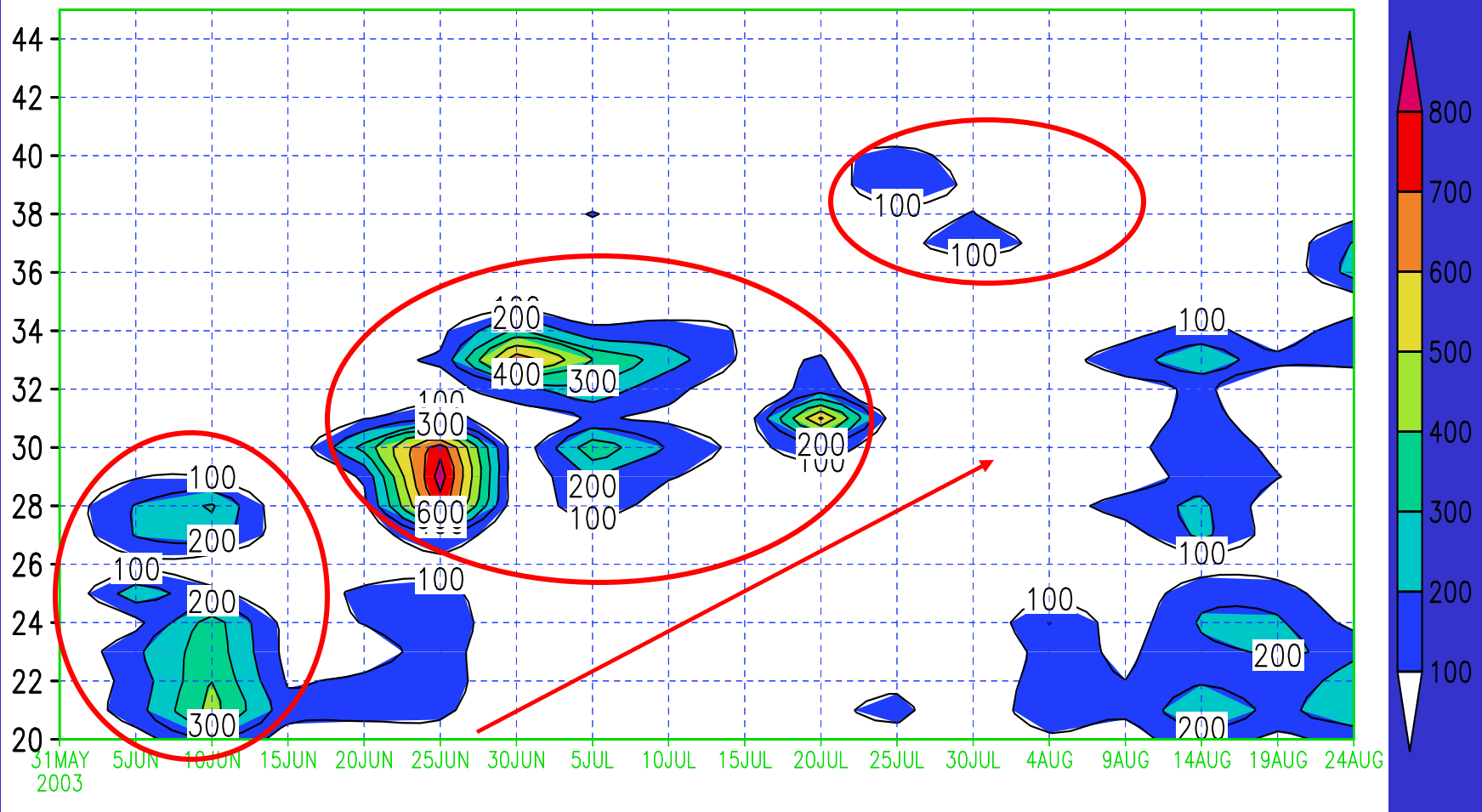


- The temporal and spatial distribution of rain belt during the monsoon season
- Evolving characteristics summer monsoon
 - Onset phase
 - Seasonal advance of the summer monsoon
 - Withdrawal of summer monsoon
- Summary



The summer (June to August) precipitation percentage anomalies over China

Latitude

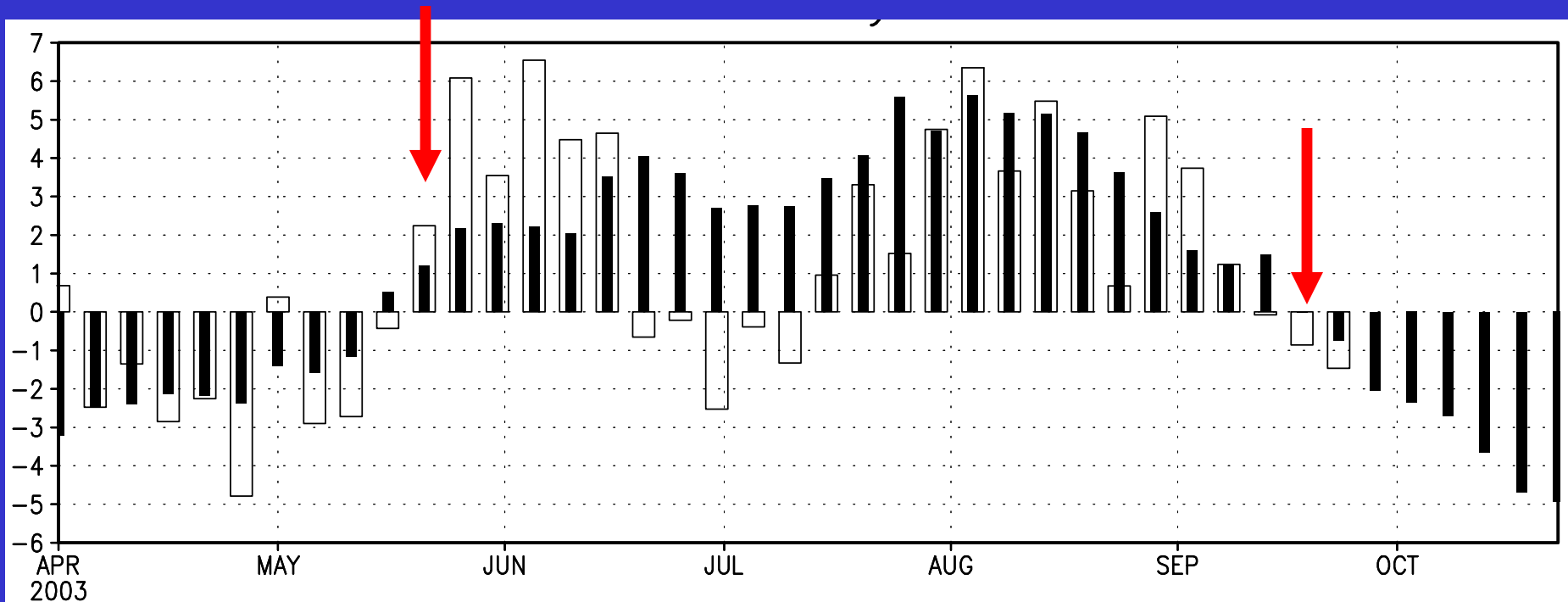


Latitude-time section of rainfall over Eastern China(110°E–120°E)from 1st pentad of June to 6th Pentad of August in 2003 (Unit: mm)



The most prominent feature of the onset of SCS summer monsoon:

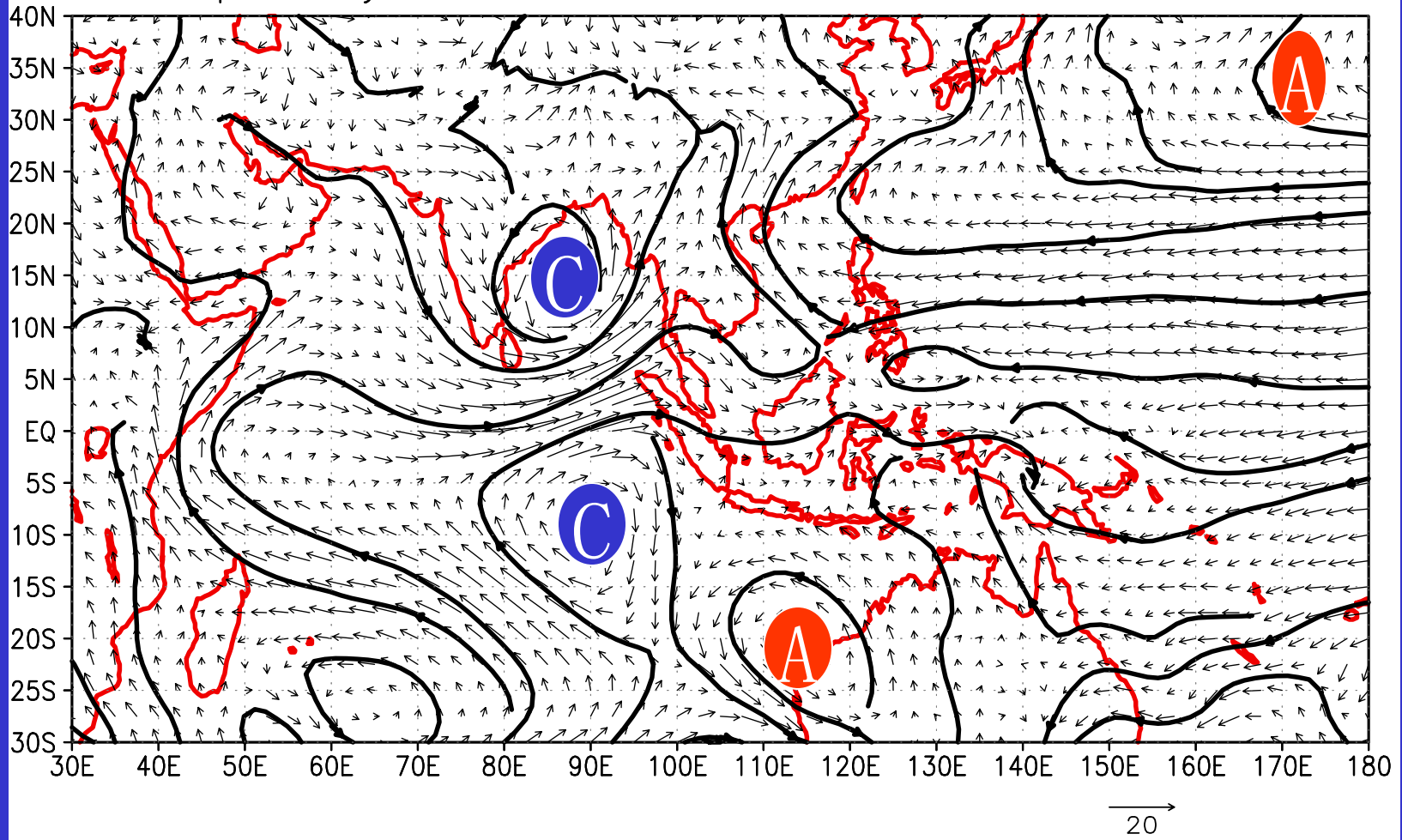
- the significant weakening and eastward retreat of the main body of the subtropical high
- low-level southwesterly wind and upper-level northeasterly wind developing in the SCS
- the rapid growth of convection and increase in rainfalls,



Variation of Pentad intensity index of SCS summer monsoon

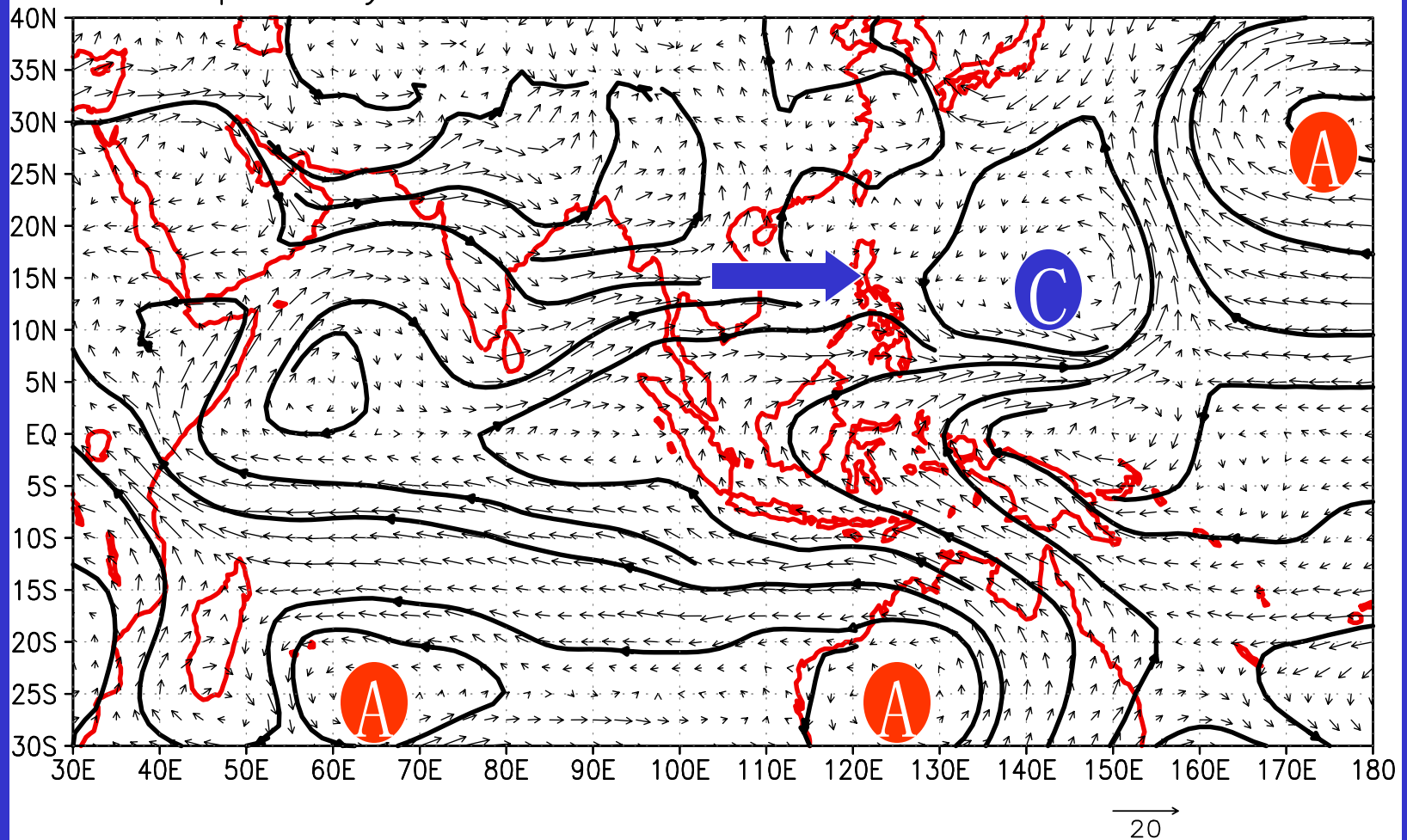
□ The index in 2003 ■ The average index in 1971-2000

pentadly mean 850hPa wind 2005 05.11-05.15



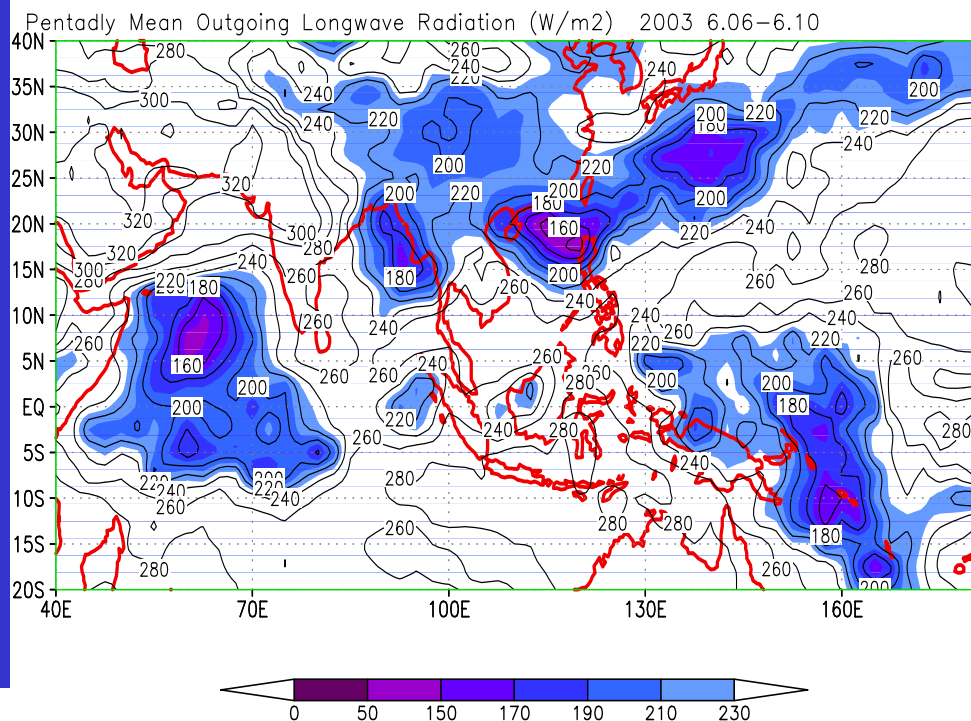
Average 850hPa winds in the 3rd Pentad
of May 2003 (Unit: m/s)

pentadly mean 850hPa wind 2003 05.21–05.25

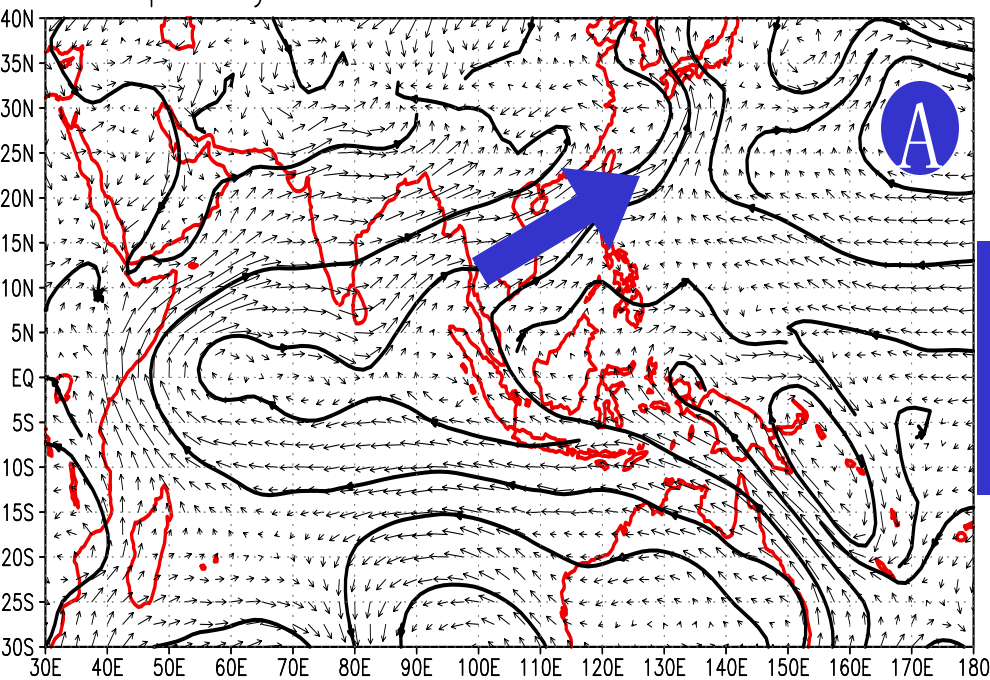


Average 850hPa winds in the 5th Pentad
of May (Unit: m/s)

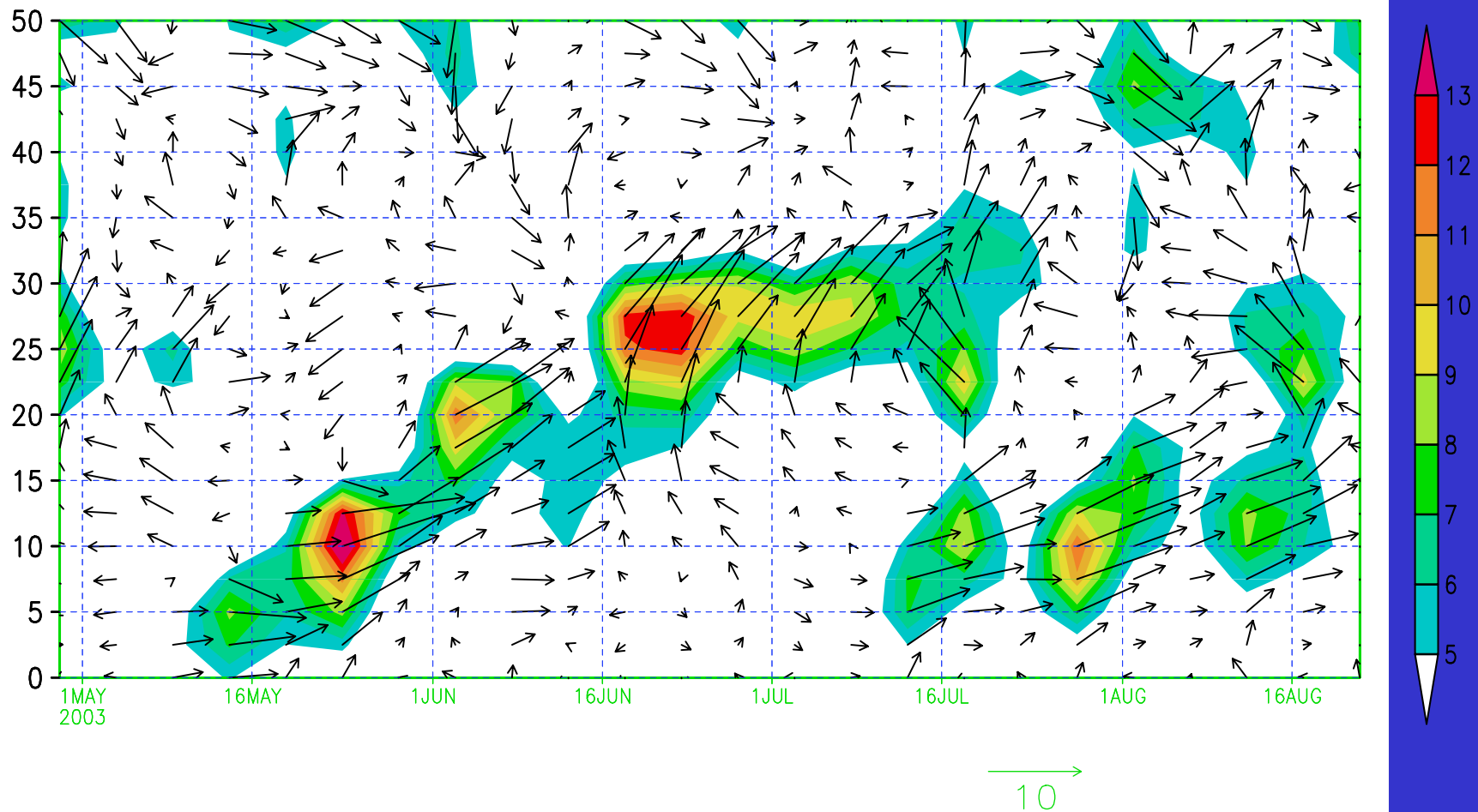
OLR in the 2nd Pentad of June (Unit: W/m²)



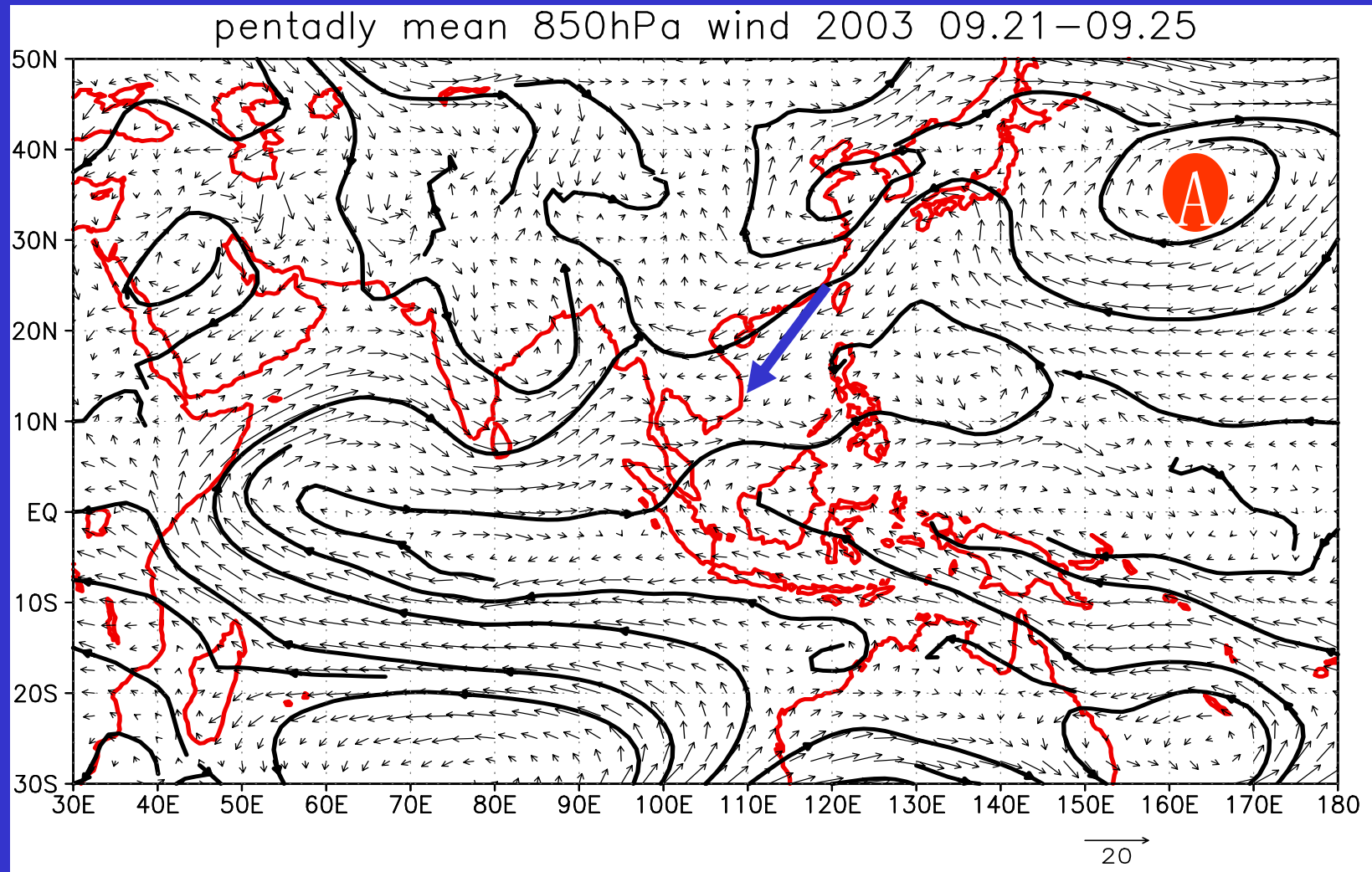
pentadly mean 850hPa wind 2003 06.06–06.10



Average 850hPa winds in the
2nd Pentad of June (Unit: m/s)



Latitude-time cross-section of 850hPa winds averaged for longitudinal range of 110 °E – 120°E from May to August of 2003 (Unit: m/s)



Average 850hPa winds in the 5th Pentad
of September (Unit: m/s)



HIGHLIGHTS

- The southwest monsoon entered the South SCS on the 5th pentad of May and its onset over all the SCS was on the first pentad of June, which was later than normal year.
- The withdrawal time of the South China Sea (SCS) summer Monsoon was the 4th pentad of September in 2003, which was earlier than normal year.





HIGHLIGHTS

- The SCS summer monsoon index was -1.33, which was weaker than normal.
- During the period from June to August, rainfall totals were more than normal in the most regions between the Yangtze and the Huanghe River, with 50% more than normal in the Huaihe River. Meanwhile, in the area south to the Yangtze River, part of north and northwest China, rainfall totals were less than normal.





THANKS